IoC - View

Version 2.1

555554

User Manual

Morpheus Medical

Calle/ Llacuna, 162
08018, Barcelona
Tel.. +34-933090668
Fax: +34-934019762
www. morpheus-medical.com
info@morpheus-medical.com

CE 0051

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Declaration of Conformity

Morpheus Medical declares that the IoC-View monitor complies with the following standards:

- EN 60601-1
- EN 60601-2
- EN 60601-2-26

Following the provisions of 93/42/EE

The IoC-view device is class IIa

Important:

Carefully read this entire manual before using the monitor in a clinical setting.

Declaration of Intention for use:

Clinical judgment should always be used when interpreting the IoC in conjunction with other available clinical signs. Reliance on the IoC alone for intra-operative anesthetic management is not recommended. As with any monitored parameter, artifacts and/or poor signal quality, may lead to an inappropriate IoC index. Potential artifacts may be caused by poor skin contact (high impedance), muscle activity or rigidity, head and body motion, sustained eye movements, improper sensor placement and unusual or excessive electrical interference. Due to limited clinical experience in the following applications, IoC index should be interpreted cautiously in patients with known neurological disorders, those taking other psychoactive medications, and in children below the age of one.

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1. About this manual

This operating manual contains all of the information you need to set up and operate the IoC-View monitor. It also includes specific cleaning and test procedures you may occasionally be required to perform. Although this manual is intended for trained medical personnel, it does not assume prior knowledge or experience with operator-programmable medical electronic devices.
Keep this operating manual with the IoC-View for use by the operator.

Before operating the monitor read this manual, with particular attention to all warnings and cautions.

NOTE:
Although the monitor is built and tested to exacting specifications, it is not intended to replace the supervision of level of consciousness monitoring by medical personnel. The user should become thoroughly familiar with the features, operations, and accessories of the monitor and exercise vigilance in its utilization.

The terms warning, caution, and note have specific meanings in this manual.

WARNINGS advise against certain conditions that could cause fatal or serious injury to an operator, patient or any other person.

CAUTIONS advise against actions or situations that could cause damage to the equipment described in this manual and/or any other equipment or goods, and/or cause environmental pollution.

NOTES give information with respect to a function, procedure or unusual point as aid to the operator.

2. Indications for use

The IoC-View has been designed to be used in the monitoring of the level of consciousness of a person during the application of general anaesthesia or in intensive care. This is accomplished by registering the electroencephalographic signal (EEG) by means of surface electrodes which is then analyzed by a digital process.

As a result of the applied calculation, an index “IoC” is obtained, which serves as guidance to the experts who use it to determine the level of consciousness of the patient during surgery.

It is emphasized that the IoC-View should only be operated by personnel qualified and trained in monitoring these types of processes, always bearing in mind that the information obtained should not be used as determining factor for diagnosis, or to decide a course of action for a patient.

WARNING:

The Index of Consciousness (IoC) should not be used as the sole parameter for adjusting the anaesthetic dose.

2.1. List of Symbols

	Type BF equipment
	IoC reference colour
	ESR reference colour
	EMG reference colour
	Power connector label
	Patient cable label
	On-Off / Selection Button (Button 1)
	Confirm value Button (Button 2)
	Do not dispose of in refuse collection. Dispose of data recycling station or equivalent with directive

2.2. Description of the device

The IoC-view monitor package consists of:

Concept	Reference
The IoC-View monitor	08001
Bag of electrodes	08001-2
Patient cable	08001-3
Power supply	08001-6
Power Cable	08001-7
Skin prep fine sand paper	08001-10
User manual (this document)	08001-11
2 AA batteries	

For further equipment please refer to the accessories list in chapter 12.

3. General overview

(For more information see the chapter 7)

3.1. Controls and indicators

In figure 1, the controls and indicators of the acquisition unit are shown. The use of each will be described later.

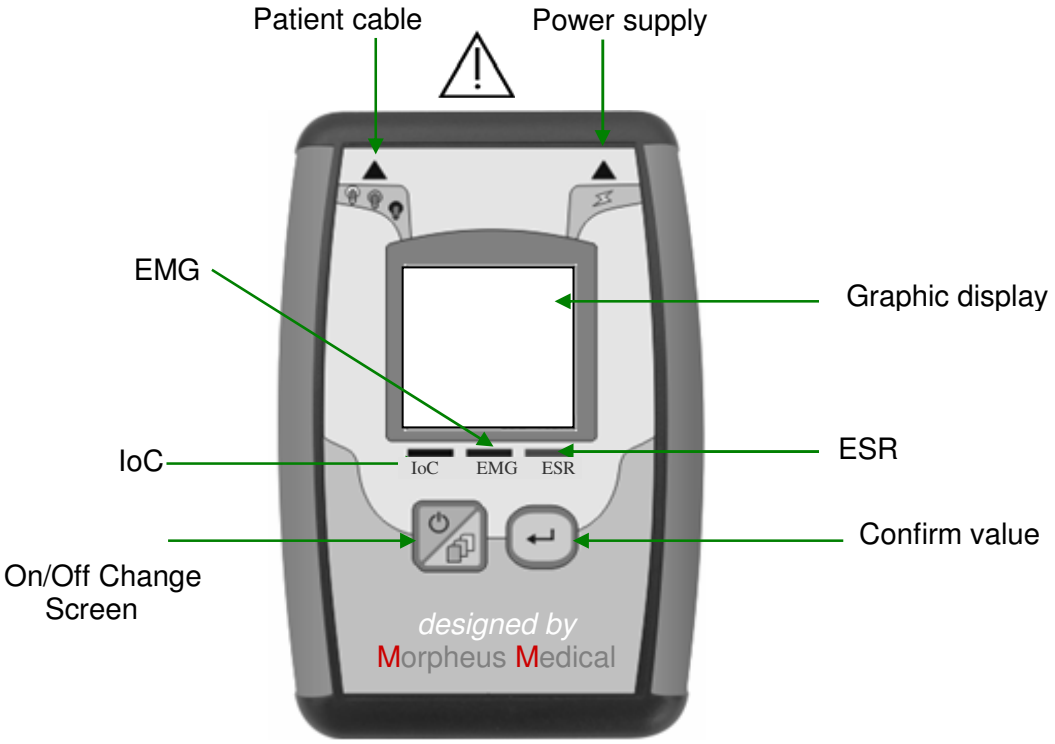


Figure 1. Front Panel

3.2. The patient cable

The patient cable in figure 2 is connected to the monitor at the patient cable connector; while the other end with three leads (red, yellow and green) is connected to the electrodes on the skin of the patient, see figure 3.

The cable is of a design especially prepared for measuring the EEG with low levels of interference. Among its characteristics are accentuated:

- Each lead of the cable is shielded individually until the yoke.
- Short terminals that permit better rejection of both capacitive and inductive interference.
- Long main cable.

The connections have different colours to assist in the correct placement. Care should be taken when positioning the electrodes as they are identical except for the colours. The device will not work properly if the electrode leads are interchanged.

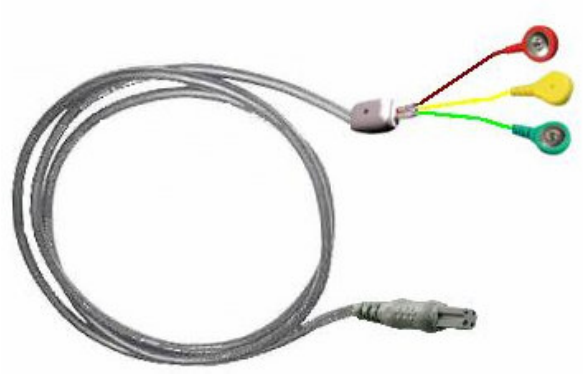


Figure 2 - Patient cable

NOTE:
The user must be sure that the connector of the patient cable will be completely introduced in the monitor.

3.3. Skin preparation and connections

In order to obtain a correct measurement of the EEG signal, it is especially recommended to prepare the skin in order to reduce the contact impedance that exists in normal conditions. For this purpose, it is advised to use fine sandpaper dedicated to remove the surface layers of the skin in the areas where the electrodes are to be placed.

3.3.1. Application of the electrodes

The patient-cable possesses three connections that should be connected to the electrodes placed on the surface of the patient's previously prepared skin. The three electrodes should be placed as indicated in figure 3. The coloured spots correspond to the colours of the ends of the patient cable, red (+), yellow (reference) and green (-). Always follow the instructions provided by the manufacturer of the electrodes.

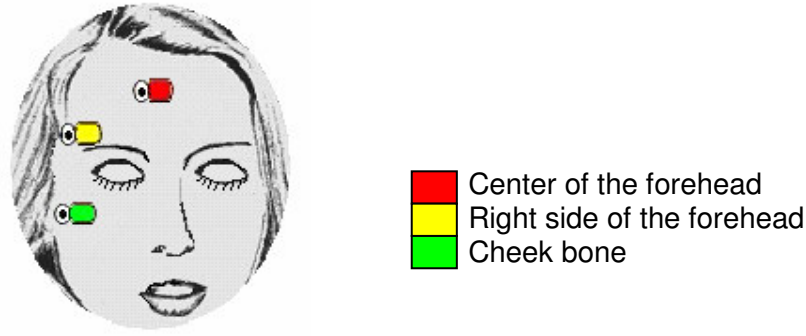


Figure 3– Application of the electrodes

NOTE:
As a mnemotechnic help for the user to position the electrodes remember the light order of the traffic light.

WARNING:

- If skin rash or other unusual symptoms develop, remove sensors from patient.
- It is important to take specially care of patients with skin problems.
- Do not place the electrodes on wounds

3.3.2. The connections

Figure 4 shows the connections that must be established before the system is put into operation:

- From mains power to the delivered power supply in case of not using batteries (more information see the chapter 7).
- The patient cable to the IoC-View.

CAUTIONS
The skin should always be prepared with skin prep sand paper in order to receive low electrode impedance. It is not recommended to use alcohol as this may leave a fine film on the skin which increases the electrode impedance.

NOTE:
The electrodes can be positioned in either left or right side of the scalp.

3.3.3. Using the IoC-View monitor.

To use the system, the following ordered tasks should be carried out:

- Connect the power supply to the IoC-view, or use the internal batteries, see figure 14.
- Connect the patient cable to the panel of the IoC-view.
- Prepare the patient's skin.
- Attach the electrodes to the patient.

- Connect the patient cable to the electrodes.
- Press the button during 3 seconds to switch on the IoC-view.

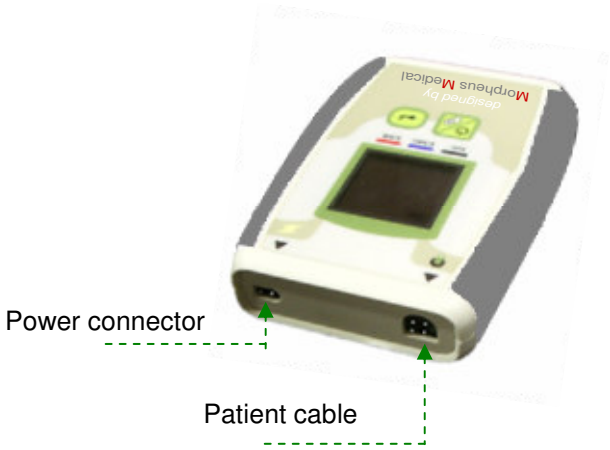


Figure 4 – Connection panel of the IoC-View

Follow the example shown in figure 5; this shows all necessary connections.

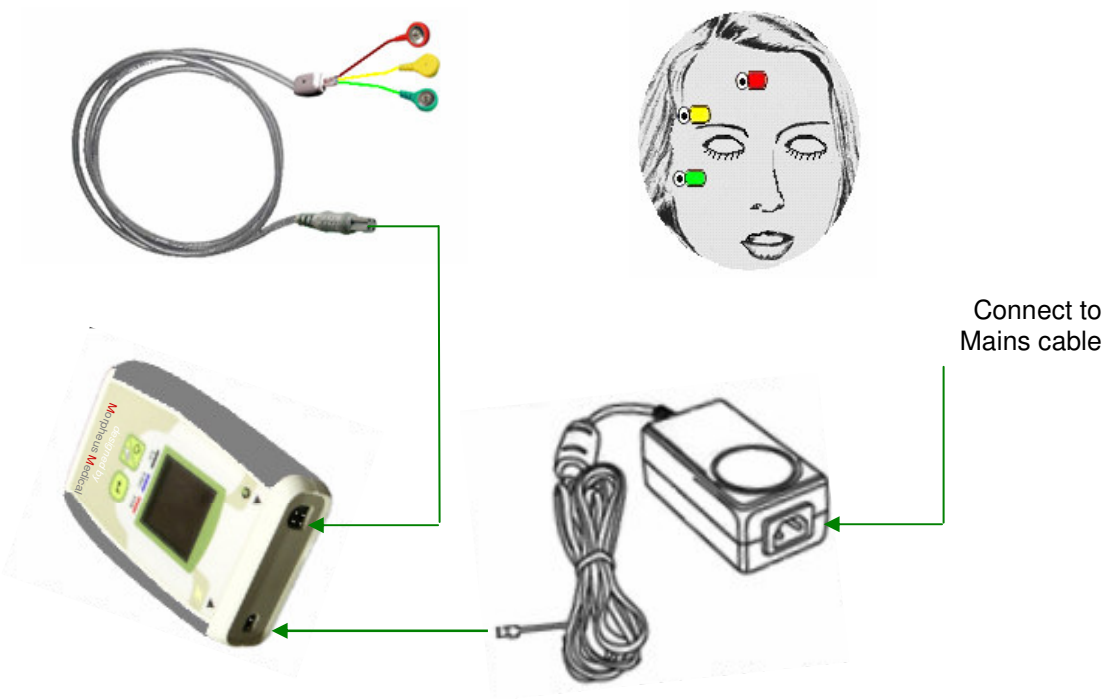


Figure 5. Installation.

WARNING:

It is very important to place the electrodes in the correct position in order to maintain the proper operation of the IoC.

4. Graphical user interface

The following figure 6 shows the main symbols used in the menu:

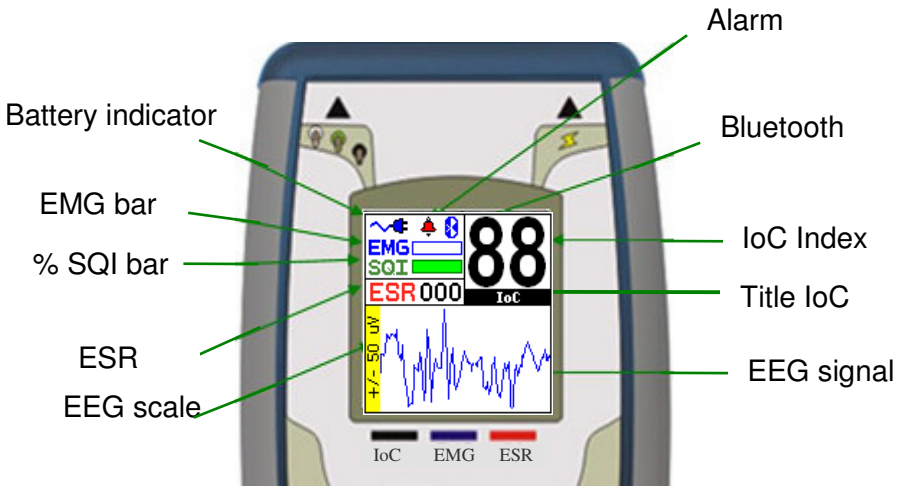


Figure 6. Symbols of the screen

NOTE:
When the device is working with the power supply appears the following symbol, when the device is working with batteries the symbol is like figure 6.

NOTE:
The symbol alarms appear when the alarms are activate from the menu alarm (see section 4.4), of the opposite case does not appear the bell in the different screens.

Buttons 1 and 2 will allow access to the different menus and options:

Button 1	**On-off /Change screen;** this button on the left side of the monitor is generally used to turn on, turn off, enter the Main Menu and exit from all other menus.
Button 2	**Confirm value;** this button on the right side of the monitor is used to move from one selection to another inside the same screen or to another menu. It is also used for certain procedures, such as the sensor check and confirms the different options.

In general, the keys have two different methods of operation namely: specifying the task by pressing the button for 0.5 or 3 seconds. The following table shows the symbol and necessary time to make an action.

Symbol	Description
1C	Press button 1 during 0.5 second
2C	Press button 2 during 3 seconds
1L	Press button 1 during 0.5 second
2L	Press button 2 during 3 seconds

When the user switches on the IoC-View monitor, the screen of welcome will be displayed, figure 7. After the device has been turned on for three seconds the electrodes test screen appears. This shows the estimation of the impedance of every electrode, figure 8. For detailed description, refer to section 4.2.

4.1. Display mode (A) – Welcome screen

When the monitor is turned on the welcome screen (figure 7) is shown for 2 seconds; after that the electrodes test screen is shown (figure 8).

Figure 7. Mode A

4.2. Display mode (B)- Electrode test

On this screen the results of the electrodes test is presented. Each electrode under test is indicated by blinking the frame colour of the corresponding electrode box, for a fixed interval of time.

For red and green electrodes, the test is passed when the contact impedances of the electrodes-skin interfaces are less than 15 KOhm. For the yellow electrode test no specific impedance value is shown, due to a different method of measuring, rather an indication of passed or failure is shown. The four different symbols appear in the following figure 8.

If any of 3 electrodes did not pass the test, the test is automatically repeated for all 3 electrodes. When the tests are passed for all 3 electrodes, then the EEG screen is displayed.

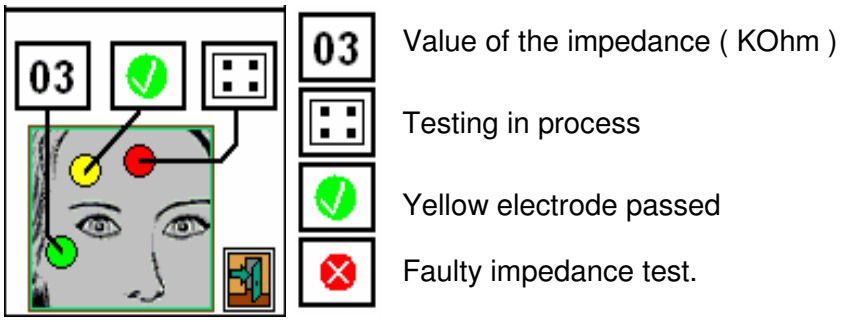


Figure 8. Mode B

The possible causes of faulty impedance test are:

- Bad contact between the skin and the electrode
- The skin of the patient skin is extremely dry.
- The skin of the patient is not properly prepared.
- The conductive gel of the electrodes has dried out.
- Interference from external equipment.

The user can leave this window or cancel the test, at any time by pressing

NOTE:
While electrode testing, the IoC is not be calculated.

4.3. Display mode (C) – The three main screens

There are three different screens showing the clinical information, see fig 9A, 9B and 9C; each one will be described below. To change between them press button 2C, as in the upper part of figure 10. In the same figure pressing 1C leads to the main menu. The procedure to change between windows or choose the main menu is shown in figure 10. For a description of each parameter, refer to section 5.

4.3.1. Large IoC screen

This screen shows the IoC in large size (figure 9A) time (hours, minutes, and seconds), EMG and ESR (EEG suppression rate).

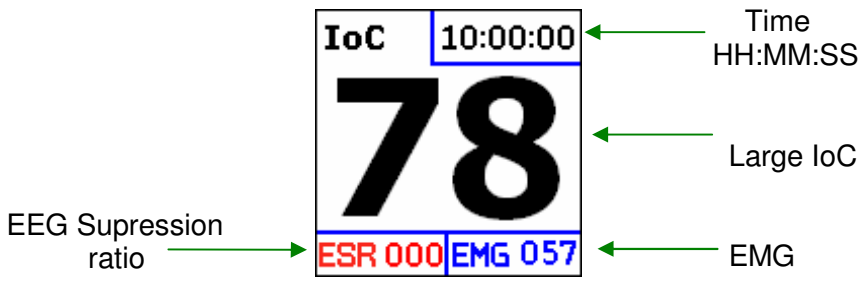


Figure 9A. Large IoC

4.3.2. EEG screen

This screen gives information of the IoC index (right upper corner of the window). EEG waveform display in a scale of +/- 475 µV (default). The battery charge level, EMG and SQI bars are displayed in the left panel; alarm and Bluetooth states are shown as well, figure 9B. The amplitude scale can be changed between ±50 µV ±120 µV, to ±250 µV and ±475 µV, for this the user must press 2L.

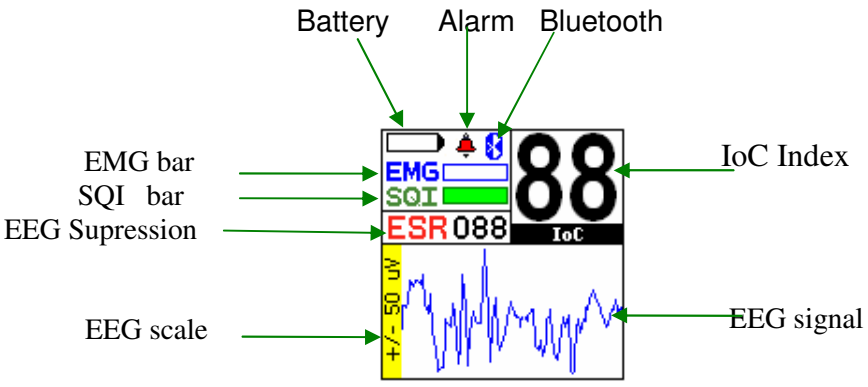


Figure 9B. EEG display

The other icons that appear in the Windows are: battery mode, power supply mode . The EMG (electromyogram) and SQI (Signal Quality Index) bars are shown in the upper left part; the alarm symbol appears on the left when it has been enabled. The Bluetooth state is shown as well, see figure 9B.

4.3.3. Trend of curves

The IoC Index, BS and EMG are shown as trend curves of 6 min duration. The EMG, and the SQI are displayed as bars in the left panel while the ESR is shown as a number; information of the battery and Bluetooth state are shown as well. If the user wants to see the previous record, press 2L. The user will be able to see 6 min trends, figure 9C.

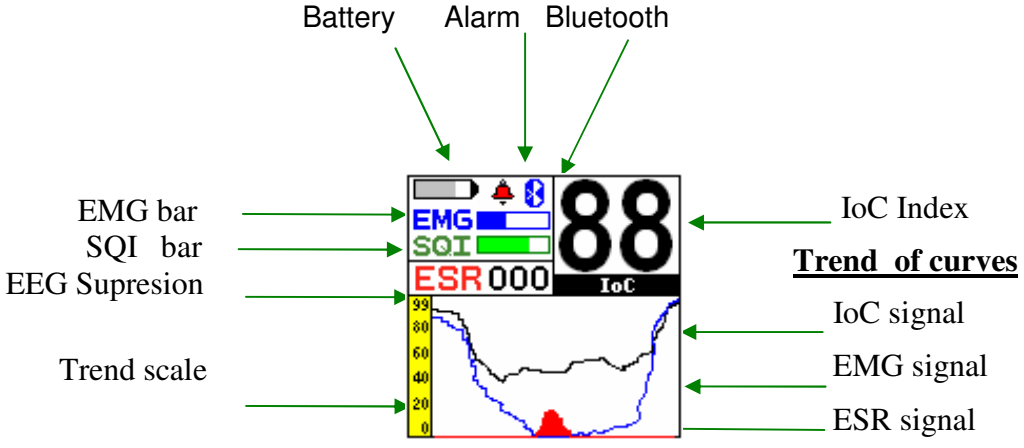


Figure 9C. Index trends

4.4. Display Mode (D) – Main menu

Figure 10 shows how to navigate to the main menu, by pressing 1C.

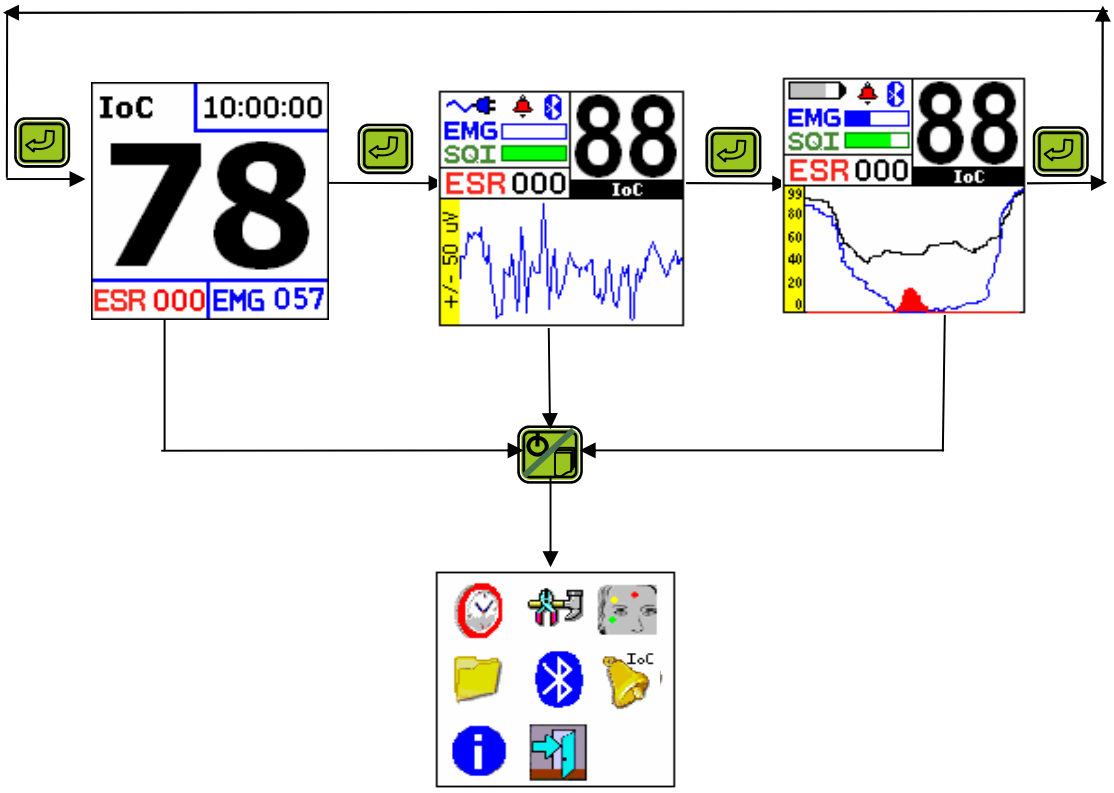
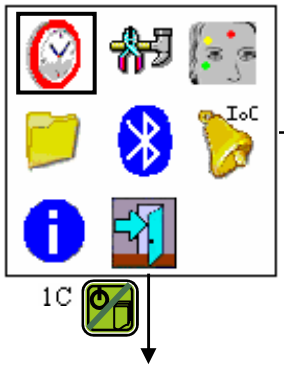


Figure 10. Instructions to change among menus.

The main menu is chosen from the previous menus by pressing 1C. This menu allows the user to access the following options:

- Time and Date
- Settings
- Electrodes test
- Device information
- Bluetooth power control
- IoC alarms
- Exit menu

To select the active element, press 1C until the desired menu is displayed. To execute an action, press 2C. The following schematics explain each option.



2C

1C

Time and day

HH:MM:SS

DAY-MONTH-YEAR

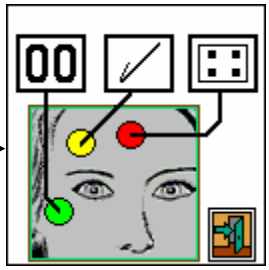
2C

1C

Setting:

	Activar	Des-activar	Información
Filter			Enable or disable of the filter during the acquisition.
Alarm			Activation of high and low alarm of the index IoC
Artefacto			Enable or disable of the artefact during the acquisition
EEG			Transmission of the EEG or IoC for Bluetooth or none of the previous ones
Electrodes			Enable or disable periodicity in the measure of impedance.
			Option only for use of the manufacturer

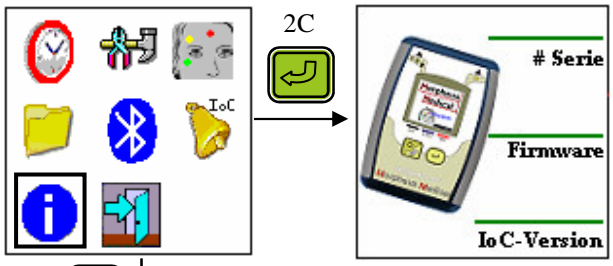
2C



1C

On demand electrode test

See the section 4.2

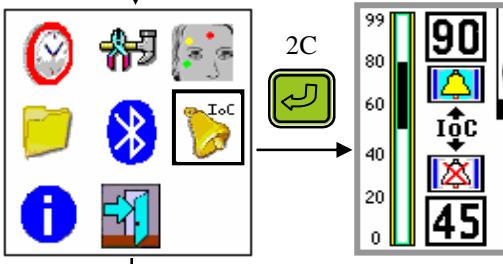


General information

Device information:

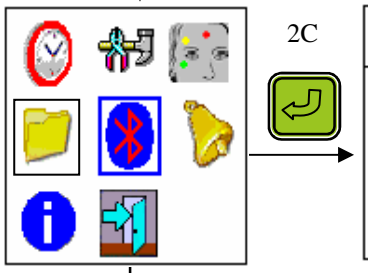
- Serial number
- Firmware Version
- IoC-View Version

1C



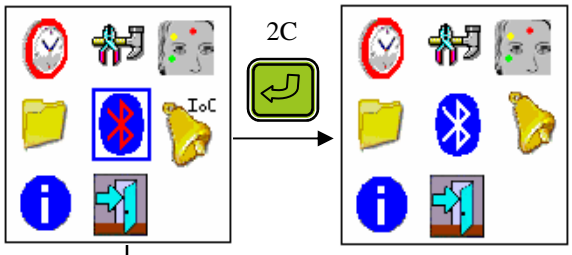
See section 4.5.2

1C



Option only for use of the manufacturer

1C

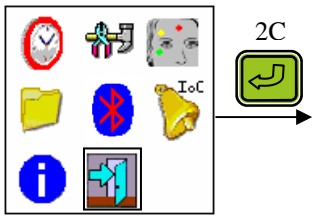


Bluetooth Power control

This menu allows enable and disable the Bluetooth, the user should press 2C for selecting it.

- Bluetooth red= Disable
- Bluetooth white = Enable

1C



Exit

Leaving the main menu returning to the previously chosen menu.

4.5. Miscellaneous information

4.5.1. Time and day

This window allows the updating of the date and time. To get to this menu press the button 1C. To change hours, minutes or seconds, press the button 1C until the correct value is indicated. To accept, press 2C. Follow the same procedure to change the date (day, month and year).

4.5.2. Alarm (High / Low)

Alarms can be set to signal the moment when the IoC rises above and/or falls below preset limits. The High and Low Alarms can be turned on or off from the Alarm Menu mode (F), where the High and Low Alarm limits can also be set. To select the value of the high and low limits, the user must press 1C until reaching the targeted value, to confirm press 2C.

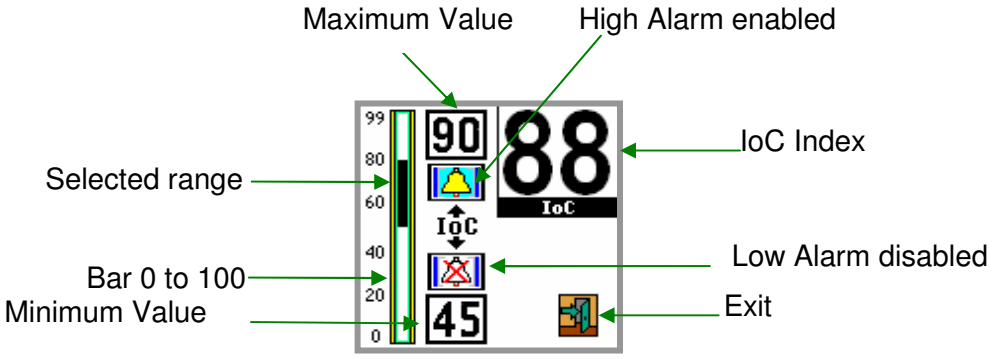


Figure 11. Alarm Screen

The levels increase in units of 2 until 100. The bar on the left, shown in black, is increased and decreased by the user. The user has three options:

- Enable both alarms (high and low)
- Enable only one of these.
- Disable both alarms.

In each case select the corresponding bell that allows enable or disable, press 1C for choosing the desired bell and 2C for accept.

NOTE:

When the alarm is enabled, a bell appears in the principal screens of the IoC-view (see figures 9A, 9B y 9C). An acoustic alarm is activated if the IoC passes one of the alarm thresholds.

When the IoC returns to the accepted range the alarm stops.

4.5.3. Acoustic Signals

Alarms can be set to signal the moment when the index rises above and/or falls below preset limits. The IoC-view generates one beep per 0.5 sec, pressing either button mutes the alarm during 1 minute.

NOTE:

- When the alarm is activated, the acoustic alarm begins to sound 15 seconds after the activation. When the index returns to the accepted range the alarm stops immediately.

ADVICE:

The user can disable the acoustic alarm as well as well as the visual from the main menu choosing configuration and then choosing the alarm symbol in the disabled state.

4.5.4. Electrodes test

The test is executed every 15 minutes. During the test the symbol Z is shown instead of IoC.

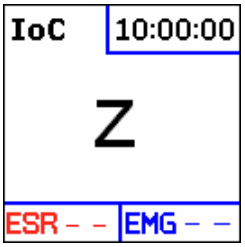
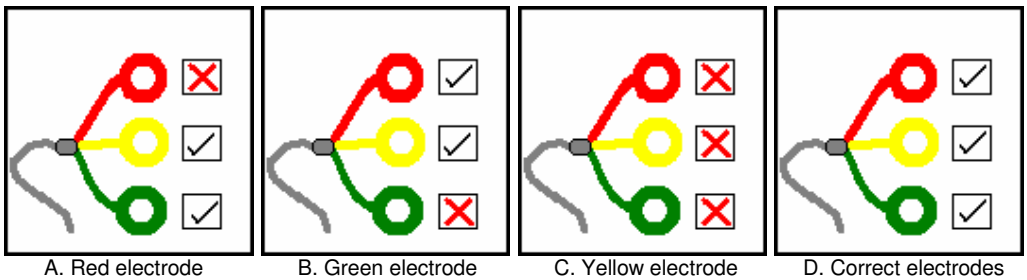


Figure 11. Example of screen during the electrodes test

If the test is accepted the window returns to the normal mode (see figure 9A to 9C) in opposite case the window will pass to the impedance screen.

If during the record some electrode is disconnected the figure 12 will be visualized shows with an X the electrode that presents problem. The possible cases are: In the red electrode in this case appear an X in front of the respective electrode see figure 12A; the same thing happens when the problem is on the green electrode, figure 12B. Nevertheless, if the problem is in the yellow electrode or two electrodes the user will see the figure 12C.



A. Red electrode B. Green electrode C. Yellow electrode D. Correct electrodes

Figure 12. Disconnection of electrodes

4.5.5. Artefact

If artefacts are detected the different screens will appear like figure 12.

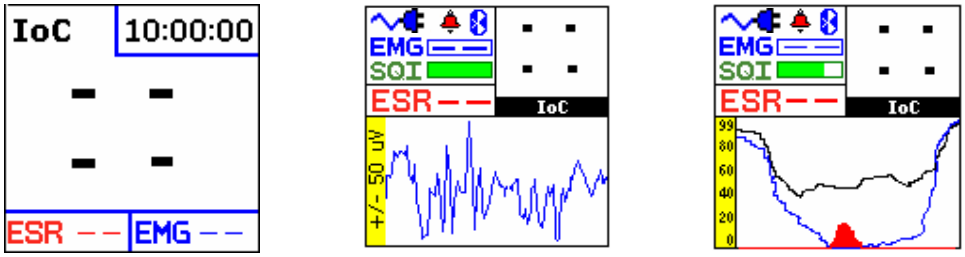


Figure 12. Visualization of windows during artefact

NOTE:

The artifact rejection should always be enabled, to avoid incorrect increases in the IoC. The artifact rejection should only be disabled for specific clinical studies according

WARNING:

It is important the patient maintains eyes closed during the recording with the IoC view. Otherwise movement artefacts from eye-blinking can affect the calculation of the IoC.

WARNING:

The IoC-view does not have continuous detection of connection of the electrode cable. A disconnection of the patient cable is only tested every 15 min when the impedance is tested.

4.5.6. Turn off the IoC -View

The user can turn off the device from any screen by pressing 1L. When this is carried out the screen shown in figure 13, appears on the IoC-view.

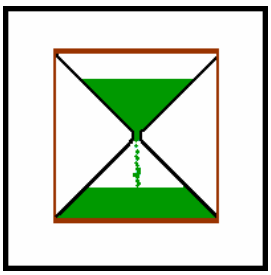


Figure 13. Exit screen

NOTE:
Do not disconnect the power supply or the batteries until the IoC-view has been turned off properly.

5. The EEG signal processing

Sensors placed on the patient's head transmit EEG signals to the analogue-digital (ADC) converter, the ADC amplifies and digitizes these signals, then sends them to the monitor. The monitor software filters the data, analyzes it for artefacts, and processes it using digital signal processing techniques. The purpose of the signal processing of EEG is to extract its complex characteristics to provide recognition of the changes of pattern in time during the acquisition. The results of the analysis can be visualized in the screen.

5.1. Calculation method

The method used for the calculation of the IoC-View is based on symbolic dynamics. This method divides the EEG signals in a finite number of partitions (space of states) and labels each partition with a symbol. The alternation of the symbols is what defines the symbolic dynamics. The IoC-View also integrates the beta ratio during the superficial anaesthesia and the amount of suppression of the EEG (ESR, EEG Suppression Rate) in deep anaesthesia. These three parameters are combined through a discriminatory function in order to define the IoC- View index, figure 13:

Figure 13. Method used to calculate the IoC-View Index

5.2. IoC-View Scale (range = 0-99)

The IoC-View is a continuous processed EEG parameter that correlates to the patient's level of hypnosis, where decreasing IoC-View values correspond to

gradually loss of consciousness and a deepening of the level of anaesthesia. The IoC-View was designed to correlate with the level of consciousness and to track changes in the effects of anaesthetics on the brain. The number IoC should not be used as the sole parameter for adjusting the anaesthetic dose. In most individuals the IoC will be above 80 in the awakes state, however shorlasting decreases to around 60 can be observed in some individuals.

IoC	Clinical state
99	Awake
80	Sedation
60	General anesthesia
40	
	Deep anesthesia
0	Isoelectric EEG

5.3. Signal quality index SQI (range= 0-100)

The SQI is a measure of the signal quality for the EEG and it is calculated based on impedance data, artifact, and other variables. It is displayed in the form of a simple bar graph in blue located at the left of the display screen.

5.4. Electromyogram (EMG)

The monitor includes an EMG filter that eliminates most of the potential interfering EMG activity. The EMG bar shows the energy of the EMG level in the 30-45 Hz frequency band. The bar is situated on the left side of the display in blue color. EMG activity can increase due to

- Reflex reactions to painful stimuli during surgery
- Need of muscular relaxation
- Muscular rigidity

The EMG bar should be checked frequently, especially in case of a sudden increase in the IoC index. If the increase in the IoC is accompanied by an increase in muscular activity, there is a risk that EMG is causing interference. When this happens, attention must be paid to the clinical signs of the patient during surgery.

5.5. Electroencephalogram (EEG) waveform display

The EEG is shown on the display. The amplitude can be changed between +/- 50, +/- 120, +/- 250, +/- 475 µV per division. This signal is filtered but the user can change it in configuration menu, as explained in section 4.3.2.

5.6. EEG suppression ratio (Range 0-100%)

The EEG Suppression ratio (ESR) is a parameter derived from the EEG typically occurring during deep levels of anaesthesia, characterized by the occurrence of periods of bursts followed by periods of suppression (almost iso-electric EEG). Suppression ratio is the percentage of time over the last 30s that the signal is considered to be in the suppressed state.

5.7. Artifact detection

The IoC-View is designed to provide only highly reliable data. It has been equipped with an algorithm for rejection of artefacts. The activation and deactivation of this option is possible from the configuration menu. See section 4.4.

6. Battery / Main Operation

The IoC-View can be operated in two different modes:

6.1. Battery operation

The IoC-view monitor works with 2AA batteries, figure 14. It is important to insert the batteries correctly in the corresponding compartment. Otherwise it will not work. The device shows an estimation of the battery remaining charge in the corner of the screen, see figure 9B or 9C. Always use new alkaline batteries to ensure the best results.

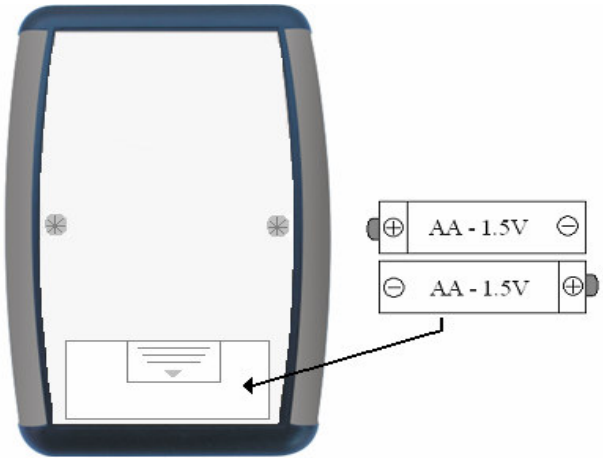


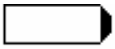
Figure 14. Battery Compartment

6.1.1. Battery symbols

An icon in the left corner left of the display shows the remaining battery capacity.

Battery about 100%-percent charged

Battery about 50%-percent charged

 Battery discharged

6.1.2. Mains operation

The IoC-View monitor works with a medical grade power supply with an input 100-220 VAC (50-60Hz) and output 5VDC.

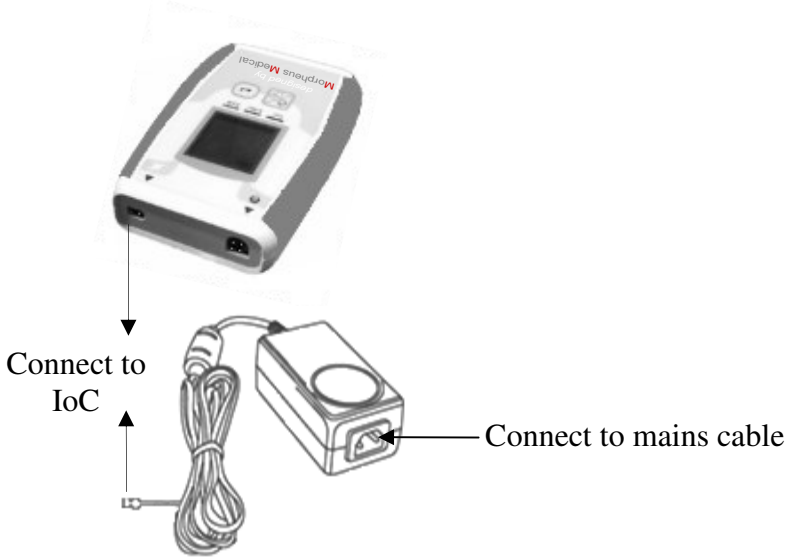


Figure15.IoC-View Power Supply

WARNING:

Only for use with adapter MM004 (Ault Inc., Model MW117).

NOTE:

When the monitor has batteries and the power supply is connected, the IoC-View takes the energy from the power supply and not from the batteries. Nevertheless to use the batteries with the power supply avoids that the monitor will turn off involuntary by disconnections of the cable or disturbances in the mains. The power supply does not charge the batteries

CAUTION:

Do not place the IoC-view near metallic objects that could cause interference or close to equipments that could generate radiofrequency interference.

7. Security advises

For security reasons it is advised to follow the following recommendations in all cases without exception:

- Do not open or remove any covers of any of the delivered items due to the danger of electrical shock.
- Do not use any other power supplies instead of the delivered ones, or operate the delivered ones outside the established ranges of power as written on the labels of the same.
- Do not attempt to replace any of the delivered pieces without contacting or informing the manufacturer.

Stop the use of the IoC – View if any of the following situations have occurred:

- Any of the provided cables show any fault on the insulation or other damage of any kind.
- Any liquid or substance falls on any of the items. In this case the equipment must be switched off, the cables disconnected, and the manufacturer informed.
- Occurrence of any kind of electrical fault
- Any mechanical damage, lose of rigidity or a movement different from the original one.
- Any indication of a loose object inside any of the delivered items.

In all the cases the manufacturer should be contacted without acting in any way on any elements delivered with the IoC–View

8. Cleaning and maintenance

- Clean the monitor with a soft cloth, which may be lightly dampened with water.
- Under no circumstances must an abrasive substance be used, as it could damage some of the elements.
- It is recommended to perform an annual revision of the equipment by qualified personnel authorized by the manufacturer.
- If in doubt contact the manufacturer.

NOTE:

If the monitor is dropped, damaged or subjected to excessive moisture or high temperature, it should immediately be taken out of service for examination by qualified service personnel.

9. Environment – Operation

9.1. Environment

Don’t use the IoC-View in a flammable atmosphere or where concentrations of flammable substances may occur.

9.2. Temperature

The IoC-View monitor is designed to operate safely at room temperature from 0 to 40 degrees C. Conditions that exceed these limits could affect reliability.

9.3. Humidity

The monitor is designed to operate within a level of relative humidity of 85%.

10. Troubleshooting

Problem	Cause	Solution
IoC-View does not turn on?	Check the power line or the battery	Replace the battery or connect the power supply.
Sensor alarm	• Sensor • Battery • No Bluetooth connection	• Check the patient cable. • Replace the battery or connect the power supply. • Connect the Bluetooth • Check if either of the sensors are disconnected or badly connected. • Replace faulty sensor
Blanked index	• Sensor	• Sensor impedance too high. • If sensor impedance is >15kΩ the IoC index, ESI and EMG will be blanked. • Check that sensors are not dry. • Check that the skin has been cleaned properly.
Signal Quality Index (SQI) low	Impedance	• Poor impedance conditions may cause the SQI to fall to 50%. • Check that the electrodes are correctly connected. • Artefacts can have many causes: diathermy, EMG, etc. • Move the device away from the sensors.
Artefacts	Diathermy, EMG	
IoC is higher than expected		• Check anaesthetic delivery systems • Check anaesthetic delivery systems • Some patients require a higher dose of drugs due to inter-patient variability. • Adequate dosing for maintenance may not be sufficient for increased stimulation.

11. General specifications

Parameter	Value
EEG sensitivity	+/- 475 µV
Noise	< 2 uVp-p (1-150 Hz)
CMRR	> 100 dB
Input Impedance	> 50 Mohm
Sample Rate	1024 samples/s, 16 bits
Index and display update	1 s
EEG waveform	±450 µV by default scaleable to ±450 µV
ESR	0-100%
EMG	0-100 arbitrary unit. Curve and bar
Index trend	6 min
Digital output	Wireless BT interface (RFCOMM). 10 meters range
Display size	28 x 28 mm
Alarms	IoC high and low user selectable limits
Artifact rejection	Automatic. User can disable.
Sensor impedance range	0 - 14 Kohm
Batteries	2 x 1.5V alkaline (LR6, AM3, AA) or rechargeable NiMH
Supply current	100 mA typical (wireless interface off)
Weight	130 g
Dimensions	117 x 78 x 24 mm
Classification	Internal power supply, Class II A, Type BF
Patient cable length	217cm
Environment - Operation	Temperature 5 — 40 °C / 41-104 °F Rel. Humidity 30 — 85 % Air pressure 700 — 1060 hPa
Environment - Transport and storage	Temperature -10 — 65 °C / 32-149 °F Rel. Humidity 30 — 85 % Air pressure 700 — 1060 hPa

12. Accessories

Reference	Accessories
08001	The IoC-View Monitor
08001-02	Bag of electrodes
08001-03	Patient cable
08001-04	Bar of short
08001-05	Pole Clamp
08001-06	Power supply
08001-07	Power Cable
08001-08	Cable Clip
08001-10	Skin prep sand paper

NOTE:
Some of the accessories are not included in the Standard packaging and should be ordered separately.

13. Warranty

Morpheus-Medical warrants that:

- The monitor is free from defects in material and workmanship under normal use and service for a period of 24 months from the date of delivery.
- Accessories are free from defects in material and workmanship under normal use and service for a period 30 days from the date of delivery.
- If any product requires service during the applicable warranty period, the purchaser should communicate directly with Morpheus Medical service centre to determine the appropriate repair facility.
- Repair or replacement will be carried out, subject to the terms of this warranty.
- The product requiring servicing should be returned promptly, properly packed, and postage prepaid.
- Loss or damage in return shipment to Morpheus Medical shall be at purchaser's risk.
- This shall apply solely to the original purchaser. This warranty shall not apply to any subsequent owner
- Don't remove the guarantee seal. The warranty will not be applied if the seal presents any breakage

14. Service and contacts

For service, please contact Morpheus Medical or the appropriate service or distribution centre to obtain a unique Service ID number for the IoC- View. Before returning the devices for service please carry out the following:

- Carefully describe what is wrong with the monitor.
- Clean the monitor before shipping it.
- Use only original packaging for return shipment.

Include all accessories used when error occurred except used sensors. Return the IoC-View to the appropriate service or distribution centre.

NOTE:
The electric diagram and the rest of documentation will be available in the Head office if required.

Head office:

Morpheus Medical
Ed. Barcelona Active
C/ Llacuna, 162. 08018 Barcelona- Spain
Fax: (+34) 93 401 97 62
Phone: (+34) 93 309 06 68
www.morpheus-medical.com
info@morpheus-medical.com

Morpheus Medical

C/ Llacuna, 162
08018 Barcelona-Spain
www.morpheus-medical.com
info@morpheus-medical.com
Phone: + 34 933090668
Fax: + 34 934019762

English Version